

Early examination on the merits is respectfully requested.

Submitted by,

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Appendix A  
Mark Ups for Claim Amendments

This redlined draft, generated by CompareRite (TM) - The Instant Redliner, shows the differences between -

original document : Q:\DOCUMENTS\YEAR 2001\P010010-MAUS-ADMINISTERING SUBSCRIBER SERVICE\ORIGINAL CLAIMS.DOC  
and revised document: Q:\DOCUMENTS\YEAR 2001\P010010-MAUS-ADMINISTERING SUBSCRIBER SERVICE\AMENDED CLAIMS.DOC

CompareRite found 71 change(s) in the text

Deletions appear as Overstrike text surrounded by []  
Additions appear as Bold-Underline text

1. ~~[Method]~~ **(Amended) A method** for administering a function of a service, ~~[in accord wherewith]~~ **comprising the steps of:**

~~[--]~~ **accepting** a request for ~~[the]~~ administration of ~~[the]~~ **said** function ~~[is accepted]~~ via a mobile network terminal device of a mobile network subscriber;

~~[--the]~~ **identifying said** mobile network subscriber ~~[is subsequently identified];~~

~~[--]~~ **instructing**, following a successful identification, ~~[the]~~ **said** mobile network subscriber ~~[is instructed]~~ that ~~[the]~~ **said** service should now be informed of a connection number of a fixed network terminal device for ~~[the]~~ **said** administration of ~~[the]~~ **said** function;

~~[--]~~ **allocating** a connection number communicated ~~[thereupon is allocated to the]~~ **after instructing said** mobile network subscriber **to said mobile network subscriber; and;**

~~[B the]~~ **controlling a** handling of a call initiated from ~~[the]~~ **said** fixed network terminal device via ~~[the]~~ **said** service, said call being allocated to ~~[the]~~ **said** mobile network subscriber with ~~[the]~~ assistance of ~~[the]~~ **said** connection number of ~~[the]~~ **said** fixed network, ~~[is controlled]~~ dependent on ~~[the]~~ **a** profile of ~~[the]~~ **said** mobile network subscriber.

cont

✓  
2. ~~[Method]~~**(Amended) The method** according to claim 1, ~~[characterized in that the]~~**further comprising the step of informing said** mobile network subscriber ~~[is informed]~~ of a selection code that is to be additionally employed given use of ~~[the]~~ **said** fixed network terminal device via ~~[the]~~ **said** service.

5  
✓  
3. ~~[Method]~~**(Amended) The method** according to claim 1 ~~[or 2, characterized in that the]~~, **further comprising the step of automatically de-registering said** fixed network terminal device that has been employed ~~[is de-registered automatically]~~ after expiration of a prescribable time ~~[and/or]~~ **or** by an explicit de-registration  
10 procedure via ~~[the mobile telephone, as a result whereof it loses the]~~ **said mobile network terminal device, resulting in a loss of a** property of being able to be used by ~~[the]~~ **said** mobile network subscriber according to said ~~[subscriber=s]~~ **subscriber's** profile.

15 ✓  
4. ~~[Service]~~**(Amended) A service** logic for ~~[the]~~ control of a service ~~[that]~~, **comprising:**

~~[--accepts]~~ **means for accepting** a request for administering a function of ~~[the]~~ **said** service via a mobile network terminal device of a mobile network subscriber;

20 ~~[B]~~ **means for** subsequently ~~[identifies the]~~ **identifying said mobile network** subscriber;

~~[B]~~ **means for instructing**, following a successful identification, ~~[instructs the]~~ **said** mobile network subscriber that it should now be informed of a connection number of a fixed network terminal device for the administration of ~~[the]~~ **said**  
25 function;

~~[--allocates]~~ **means for allocating** a connection number communicated ~~[thereupon to the]~~ **after instructing said** mobile network subscriber **to said mobile network subscriber; and**

**means for controlling a;**

~~B then controls the~~ handling of a call initiated from ~~the~~ said fixed network terminal device via ~~the~~ said service, said call being allocated to ~~the~~ said mobile network subscriber with ~~the~~ assistance of ~~the~~ said connection number of ~~the~~ said fixed network, dependent on ~~the~~ a profile of ~~the~~ said mobile network subscriber.

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✓  
5. ~~[Service]~~(Amended) A service logic according to claim ~~6~~ ~~[sic]~~, characterized in that it informs ~~the~~ 4, further comprising a means of informing said mobile network subscriber of a selection code that is to be additionally employed given use of ~~the~~ said fixed network terminal device via ~~the~~ said service.

10

✓  
6. ~~[Service]~~(Amended) A service logic according to claim 4 ~~or 5~~, characterized in that it ~~de-registers the~~, further comprising: means for automatically de-registering said fixed network terminal device that has been employed ~~automatically~~ after expiration of a prescribable time ~~and/or~~ or by an explicit de-  
15 registration procedure via ~~the~~ said mobile telephone, ~~as a result whereof it loses the~~ resulting in a loss of a property of being able to be used by the mobile network subscriber according to said ~~subscriber=s~~ subscriber's user profile.

This redlined draft, generated by CompareRite (TM) - The Instant Redliner, shows the differences between -

original document : Q:\DOCUMENTS\YEAR 2001\PO10010-MAUS-ADMINISTERING SUBSCRIBER SERVICE\ORIGINAL SPECIFICATION.DOC

and revised document: Q:\DOCUMENTS\YEAR 2001\PO10010-MAUS-ADMINISTERING SUBSCRIBER SERVICE\SUBSTITUTE SPECIFICATION.DOC

CompareRite found 53 change(s) in the text

- Deletions appear as Overstrike text surrounded by []  
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## SPECIFICATION

### TITLE

METHOD FOR ADMINISTERING A SERVICE FOR A SUBSCRIBER

## BACKGROUND OF THE INVENTION

### Field of the Invention

**1 The invention relates to a method and associated logic for administering a function of a service in a telecommunications network.**

### Description of the Related Art

**2** For using an FMC ~~{service (FMC:)}(fixed-mobile converged)~~ **service**, the subscriber must be unambiguously identified and authorized (for example, in order to be able to carry out a correct charging). ~~{Given}~~ **For** fixed-mobile converged services such as~~[, for example,]~~ PCS (personal communication service) and CCS (corporate communication service), the service user sometimes employs a mobile terminal device and sometimes employs a fixed network terminal device.

**3** In the mobile radiotelephone network, the unambiguous identification of the subscriber ensues automatically via ~~{the}~~ **a** SIM ~~{card (SIM:)}(subscriber identity module)~~ **card**. The identification of the subscriber can also ensue automatically in the fixed network when the subscriber uses a terminal device that is administratively known to the FMC service and that is allocated to the subscriber, and when the fixed network supplies the calling line identity (connection number) of this fixed network terminal device to the FMC service logic.

~~{Given employment of}~~ **4** **When using** an arbitrary fixed network terminal (i.e., a fixed network terminal that was not administratively allocated to the subscriber by the

FMC service), an automatic identification of the subscriber is not possible. However, a registration at one's own fixed network terminal device for employing this terminal device via a specific FMC service is also not possible, even though this would be meaningful in certain cases (for example, for teleworkers when specific calls from the connection are to be at the expense of the company (CCS service)).

5 Up to now, the fixed network has supported the use of outside terminals at one's own expense or ~~[, respectively,]~~ of one's own terminal at the expense of a third party only via the possibility of identifying and authenticating the calling party ~~[by means of]~~ via an in-band dialogue. To that end, the calling party (for example, an IN service subscriber) must input a personal identification number (PIN) that the service logic compares to data stored in the network (for example, ~~[given]~~ for credit card services or ~~[given]~~ for UPT). Such ~~[a Prior Art]~~ prior art is known, for example, from the European Patent document EP-A-0 602 779.

6 Furthermore, the International Patent document WO 98 09425 A~~;~~ ~~[The]~~ ~~further,]~~ discloses a system for handling calls with whose assistance a fixed network terminal device that is to be employed for the continuation of the call can be indicated given an initiation of a call via a mobile network terminal device.

7 Finally, the European Patent document EP-A-0844 799~~;~~ ~~[The]~~ ~~finally,]~~ discloses a communication system for handling calls with whose assistance a mobile network subscriber can indicate via said subscriber's mobile network terminal device whether calls directed to ~~[said]~~ this subscriber should be routed to a prescribable fixed network terminal device.

#### SUMMARY OF THE INVENTION

8 The invention is based on the object of facilitating the employability of a fixed network terminal device via a specific service for a mobile network subscriber.

#### BRIEF DESCRIPTION OF THE DRAWINGS

9 An exemplary embodiment of the invention is explained in greater detail below with reference to the ~~[drawing, whereby the drawing comprises one Figure.~~

single Figure, which is a block schematic diagram showing the inventive arrangement.

#### DESCRIPTION OF THE PREFERRED EMBODIMENTS

**10** The Figure represents an exemplary configuration ~~[wherein]~~ **in which** the realization of the inventive service logic is based on an intelligent network IN. An inventive FMC service, however, need not necessarily be realized on a service control point SCP of an IN.

5 ~~[Given]~~ **11** **For** an FMC service whose service logic is realized in a service control point SCP, the caller has a mobile telephone GSM available. ~~[Given]~~ **For** an access of the subscriber to the FMC service via the mobile telephone, the FMC service logic receives the mobile radiotelephone number MSISDN of the FMC service subscriber that is administratively known to the FMC service logic and that was authenticated in  
10 the mobile radiotelephone network PLMN (given an IN-based FMC service, for example, the mobile radiotelephone number of the FMC service subscriber is transmitted in the CallingPartyNumber parameter of the standardized IN protocol, see ETSI Core INAP or ITU-T Recommendations Q.1218/Q.1228). The FMC service logic can automatically identify and authorize the FMC subscriber on the basis of the ~~[subscriber=s]~~ **subscriber's** mobile radiotelephone number.

**12** This can be utilized by the subscriber of the FMC service for the use of an arbitrary fixed network terminal device in a fully digital fixed network PSTN that transmits the CallingLineIdentity in order to avoid the employment of a PIN. The procedure for this is as follows:

20 Phase 1:

**13** The subscriber selects an FMC service access code at the mobile telephone GSM. The access request is potentially forwarded to the FMC service across network boundaries (here, from a mobile network PLMN via a digital fixed network  
25 PSTN). The FMC service automatically identifies the subscriber on the basis of the ~~[subscriber=s]~~ **subscriber's** mobile radiotelephone number MSISDN. ~~[In response thereto, the]~~ **The FMC service [initiates] responds by initiating** that the subscriber should now inform the service of a connection number of a fixed network terminal device. Via voice or DTMF input, the subscriber enters the CallingLineIdentity of the  
30 fixed network terminal device that he would like to use at his own expense for outgoing calls or other line-switched services (for example, data transmission) for a definable time duration or, respectively, until an explicit de-registration. The FMC service subsequently registers the terminal device and assigns it to the subscriber.

Optionally, the FMC service can communicate a selection code to the subscriber that is to be additionally employed ~~[given]~~ for utilization of this fixed network terminal device (the service can distinguish between a plurality of inventive outside users of the fixed network terminal device on the basis of the selection code).

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#### Phase 2:

**14** The subscriber selects a specific FMC service access code at the fixed network terminal device and, optionally, an additional, temporary selection code before the destination telephone number. The FMC service access number is triggered in the fixed network and an inquiry is made at the FMC service logic (for example, with the existing IN procedures). This identifies the FMC service subscriber on the basis of the CallingLineIdentity of the fixed network terminal device registered in ~~[phase]~~ Phase 1 that is co-supplied in a fully digital fixed network and ~~[B optionally B]~~ (optionally) also on the basis of the temporary selection code in the selected numbers (INAP parameter CalledPartyNumber), and decides about further handling of the call (for example, charge accrual) on the basis of the FMC service subscriber profile). The FMC service logic controls the further handling of the call (for example, according to the existing IN procedures). The freedom from cost for the owner of the fixed network terminal can be assured on the basis of the selected, specific FMC service access code in the fixed network subscriber switching center on the basis of administrative data or controlled by the FMC service logic (for example, with the assistance of existing IN procedures).

**15** The FMC service subscriber can also use the registered fixed network terminal device for subsequent calls in the same way without requiring a separate ~~[Pin therefor]~~ PIN, namely until a de-registration ~~[ensues]~~ takes place.

25

#### Phase 3:

**16** Either automatically after the expiration of a prescribable time and/or by an explicit de-registration procedure via the mobile telephone, the fixed network terminal device that has been employed loses the property of being able to be used by the FMC service subscriber at the ~~[subscriber=s]~~ subscriber's own expense or, <sup>NE  
R/REQ  
CORRECT</sup> ~~respectively,~~ of being able to be used by the FMC service subscriber at the expense of a third party. ~~[[Given]]~~ For an explicit de-registration procedure, which is again to



be implemented via the mobile network terminal device, analogous to the registration procedure, the FMC service checks whether there is already a registration for the CallingLineIdentity indicated by the subscriber. When this is the case, the de-registration is implemented.)

5    **17**    The administration of subscriber-individual PINs for the use of arbitrary fixed network terminals is thus superfluous for FMC services.

10    **18**    FMC service sub-functions other than the described method for using arbitrary fixed network terminals can also be administered without the employment of a PIN by the subscriber when the subscriber implements the administration only via his mobile radiotelephone. The required subscriber identification is carried out by the mobile radiotelephone network in the same way as described for the method for using arbitrary fixed network terminals. Subscriber-individual PINs can thus be generally foregone in FMC services when all subscriber inputs for administration of services ensue only via the ~~{subscriber=s}~~ **subscriber's** mobile radiotelephone.

15    ~~[Abbreviations Employed:]~~ **19**    **The above-described method and associated logic are illustrative of the principles of the present invention. Numerous modifications and adaptations thereof will be readily apparent to those skilled in this art without departing from the spirit and scope of the present invention.**

[BTS : base transceiver system] **ABSTRACT**

[BSC : base station controller

HLR/AC : home location register / authentication center

IN : intelligent network

5 INAP : In application protocol

ISUP : ISDN user part

LEX-SSP : Local exchange with SSP functionality

MSC-SSP : Mobile switching center with SSP functionality

MAP : mobile application part

10 PSTN : Public switched telephone network

PLMN : public land mobile network

SSP : service switching point] **20 The invention prevents the need for a**

**subscriber to input a PIN to book a service with the purpose of managing this**

**service from the subscriber side. This is achieved by using a mobile network**

15 **terminal for the management. The mobile subscriber reports a subscriber**

**number of a fixed network terminal to the service, in which the subscriber**

**number thus reported is allocated to the mobile network subscriber so that the**

**mobile network subscriber can thereafter use the fixed network terminal for**

**the special service, namely by debiting an account opened by the service.**

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